



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/923,446 | 08/08/2001 | Junichi Matsunoshita | 110332 | 9081 |

25944 7590 09/26/2006

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

POON, KING Y

ART UNIT PAPER NUMBER

2625

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/923,446 | Applicant(s) MATSUNOSHITA ET AL. | |
| | Examiner King Y. Poon | Art Unit 2625 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/20/2006 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 3, 5, 10, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Funada et al (US 5,742,408).

Regarding claims 3, 5: Funada et al. teach an image data outputting apparatus (fig 2) for outputting copy forgery preventing image data for preventing copy-based forgery (column 12, line 10, pattern to be output), comprising: generating means (column 12, line 9, pattern generation circuit 2411) for generating copy forgery preventing image data corresponding to an image forming characteristic (note 1) of an image forming apparatus for forming an image; wherein the image forming characteristic of the image forming apparatus corresponds to a resolution of the image

Art Unit: 2625

forming apparatus; and outputting means for outputting the copy forgery preventing image data generated by the generating means to the image forming apparatus for forming an image (column 12, lines 9-30, signal is output to machine for printing).

Note 1: column 14, lines 5-13, the print preventive pattern that is selected must be inconspicuous with human eyes, and whether an image is inconspicuous with human eyes inherently depends in resolution of the printer. Column 8, lines 50-63 teaches the selected pattern is specially designed according to (corresponds to) the resolution of the printer (400dpi in this example).

Regarding claims 10, 12: Funada teaches the image forming characteristic of the image forming apparatus further corresponds to at least one of a tone property and a number of colors of the image forming apparatus.

Column 4, lines 20-30, Funada teaches the printer is printing with four colors, CMYK. Column 18, lines 1-5, teaches a particular pattern is not selected according to whether the printer is in a monochromatic copy mode or a two color copy mode. The monochromatic copy mode (printing with one color) or a two color copy mode (printing with 2 color) are image forming characteristic of the printer.

Furthermore column 8, lines 1-5 teaches the pattern is selected only when the printer is forming yellow images.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2625

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 4, 9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funada et al (US 5,742,408).

Regarding claims 1, 4: Funada teaches an image data outputting apparatus (fig 2) for outputting copy forgery preventing image data for preventing copy-based forgery (column 12, line 10, pattern to be output), comprising: storing means (column 7, lines 44-46, LUT 903) for storing a plurality of pieces of copy forgery preventing image data corresponding to image forming characteristics (note 1) of a plurality of image forming apparatuses (note 2); wherein an image forming characteristic of the image forming apparatus corresponds to a resolution of the image forming apparatus; selecting mean for selecting a piece of copy forgery preventing image data corresponding to an image forming characteristic of an image forming apparatus (note 1) specified for forming an image from the plurality of pieces of copy forgery preventing image data stored in the storing means (column 12, lines 7-22 & fig 17B, information regarding the model number and date of use of a copy machine is used in the pattern which inherently requires a selecting means Furthermore, column 8, lines 46-48, other patterns are available); and outputting means (column 12, line 9, pattern generation circuit 2411) for outputting the piece of copy forgery preventing image data selected by the selecting means to the image forming apparatus specified for forming an image (column 12, lines 7-22, a signal is sent from circuit 2411 to indicate the specifics of the pattern).

Note 1: column 14, lines 5-13, the print preventive pattern that is selected must be inconspicuous with human eyes, and whether an image is inconspicuous with human eyes inherently depends in resolution of the printer. Column 8, lines 50-63 teaches the selected pattern is specially designed according to (corresponds to) the resolution of the printer (400dpi in this example).

Note 2: When a printer is available to the public from a manufacturer, it would have been obvious that the manufacturer would provide the public with a plurality of the same model printers having the same image forming characteristic. Clearly, the pattern that corresponds to the image forming characteristic of a printer would also corresponds to the image forming characteristic of other printers of the same model. The claim does not care whether the other printers are using the pattern or not or how the pattern is used by the other printers.

Regarding claims 9, 11: Funada teaches the image forming characteristic of the image forming apparatus further corresponds to at least one of a tone property and a number of colors of the image forming apparatus.

Column 4, lines 20-30, Funada teaches the printer is printing with four colors, CMYK. Column 18, lines 1-5, teaches a particular pattern is not selected according to whether the printer is in a monochromatic copy mode or a two color copy mode. The monochromatic copy mode (printing with one color) or a two color copy mode (printing with 2 color) are image forming characteristic of the printer.

Furthermore column 8, lines 1-5 teaches the pattern is selected only when the printer is forming yellow images.

6. Claims 6, 7, 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funada et al (US 5,742,408) in view of Heckman et al (US 5,291,243).

Regarding claim 6, Funada et al. teach an image data outputting apparatus (fig. 2) which outputs a piece of copy forgery preventing image data for preventing copy-based forgery to an image forming apparatus for forming an image based on a piece of forgery prevention target image data (column 11, line 62 - column 12, line 22, the indication data that is used to check against the particular image indicates target image data) to be protected from copy-based forgery, the image data outputting apparatus comprising: storing means for storing a plurality of pieces of forgery preventing target image data (column 11, line 62 - column 12, line 22, the indication data that is used to check against the particular image indicates target image data, which is inherently stored in order to access it) and a plurality of pieces of copy forgery preventing image data (column 12, lines 7-22 & fig 1 7B, information regarding the model number and date of use of a copy machine is used in the pattern, requiring storage of the date and model number. These numbers differ for each copy machine used. Furthermore, column 8, lines 46-48, other patterns are available); retrieving and selecting means for retrieving a piece of forgery prevention target image data corresponding to information transmitted from a terminal (figs 17 & column 11 line 58 - column 12, line 22, a particular image 803, i.e. information transmitted from terminal, is read and the determination circuit 409, i.e. the retrieving means, receives the particular image and retrieves indication data, which inherently must be stored for it to be accessed, in order

Art Unit: 2625

to check against the particular image) from the plurality of pieces of forgery prevention target image data stored in the storing means and selecting a piece of copy forgery preventing image data corresponding to the retrieved piece of forgery prevention target image data and an image forming characteristic of an image forming apparatus specified for forming an image by printing (column 12, lines 7-22, the pattern generation circuit 2411 generates indication signals that corresponds to the particular image, i.e. plurality of pieces of forgery preventing target image data, and note 1); wherein the image forming characteristic of the image forming apparatus corresponds to a resolution of the image forming apparatus; and outputting means for outputting the retrieved piece of forgery prevention target image data and the selected piece of copy forgery preventing image data (figs 17 & column 12, lines 7-22, indication of particular image is output along with pattern).

Funada et al. teach wherein the piece of copy forgery preventing image data includes at least a first pattern (fig. 10).

Additionally, Funada et al. teach a selecting means that selects the piece of copy forgery preventing image data so that distinguished patterns can be formed (column 8:lines 46-48), and that the pattern is printed so that the document being printed can be legibly read (column 12, lines 14-22).

Funada et al. do not teach printing the piece of copy forgery preventing image data wherein the piece of copy forgery preventing image data includes at least a background portion constituted by a first pattern and a latent image portion constituted

Art Unit: 2625

by a second pattern, wherein the background portion and the latent image portion are almost equal in density.

Heckman, in the same area of print image patterns onto print pages to avoid forgery, teaches printing the piece of copy forgery preventing image data wherein the piece of copy forgery preventing image data includes at least a background portion (column 8, lines 1-5, 110, fig. 11) constituted by a first pattern and a latent image portion (111, fig. 11, column 8, lines 15-25) constituted by a second pattern, wherein the background portion and the latent image portion are almost equal in density (column 8, lines 18-20, abstract).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Funada to include: printing the piece of copy forgery preventing image data wherein the piece of copy forgery preventing image data includes at least a background portion constituted by a first pattern and a latent image portion constituted by a second pattern, wherein the background portion and the latent image portion are almost equal in density.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Funada by the teaching of Heckman because: (a) it would have created an improved and more efficient system for electronically printing tamper-resistant plural color documents as taught by Heckman, column 1, lines 5-10; and (b) it would have eliminate the problem of requiring pre-printed "safety paper" as taught by Heckman, column 1, lines 5-20.

Note 1: column 14, lines 5-13, the print preventive pattern that is selected must be inconspicuous with human eyes, and whether an image is inconspicuous with human eyes inherently depends in resolution of the printer. Column 8, lines 50-63 teaches the selected pattern is specially designed according to (corresponds to) the resolution of the printer (400dpi in this example).

Regarding claim 7: Funada et al. teach an image data outputting apparatus (fig. 2) which outputs a piece of copy forgery preventing image data for preventing copy-based forgery to an image forming apparatus for forming an image based on a piece of forgery prevention target image data (column 11, line 62 - column 12:line 22, the indication data that is used to check against the particular image indicates target image data) to be protected from copy-based forgery, the image data outputting apparatus comprising: storing means for storing a plurality of pieces of forgery preventing target image data (column 11:line 62 - column 12, line 22, the indication data that is used to check against the particular image indicates target image data, which is inherently stored in order to access it); retrieving means for retrieving a piece of forgery prevention target image data corresponding to information transmitted from a terminal from the plurality of pieces of forgery prevention target image data stored in the storing means (figs 17 & column 11, line 58 - column 12, line 22, a particular image 803, i.e. information transmitted from terminal, is read and the determination circuit 409, i.e. the retrieving means, receives the particular image and retrieves indication data, which inherently must be stored for it to be accessed, in order to check against the particular image); generating means for generating a piece of copy forgery preventing image data

Art Unit: 2625

corresponding to the retrieved piece of forgery prevention target image data and an image forming characteristic of an image forming apparatus specified for forming an image by printing (column 12, lines 7-22, the pattern generation circuit 2411 generates indication signals that corresponds to the particular image, i.e. plurality of pieces of forgery preventing target image data, and note 1); wherein the image forming characteristic of the image forming apparatus corresponds to a resolution of the image forming apparatus; and outputting means for outputting the retrieved piece of forgery prevention target image data and the selected piece of copy forgery preventing image data (figs 17 & column 12, lines 7-22, indication of particular image is output along with pattern).

Funada et al. teach wherein the piece of copy forgery preventing image data includes at least a first pattern (fig. 10).

Additionally, Funada et al. teach a selecting means that selects the piece of copy forgery preventing image data so that distinguished patterns can be formed (column 8:lines 46-48), and that the pattern is printed so that the document being printed can be legibly read (column 12, lines 14-22).

Funada et al. do not teach printing the piece of copy forgery preventing image data wherein the piece of copy forgery preventing image data includes at least a background portion constituted by a first pattern and a latent image portion constituted by a second pattern, wherein the background portion and the latent image portion are almost equal in density.

Heckman, in the same area of print image patterns onto print pages to avoid forgery, teaches printing the piece of copy forgery preventing image data wherein the piece of copy forgery preventing image data includes at least a background portion (column 8, lines 1-5, 110, fig. 11) constituted by a first pattern and a latent image portion (111, fig. 11, column 8, lines 15-25) constituted by a second pattern, wherein the background portion and the latent image portion are almost equal in density (column 8, lines 18-20, abstract).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Funada to include: printing the piece of copy forgery preventing image data wherein the piece of copy forgery preventing image data includes at least a background portion constituted by a first pattern and a latent image portion constituted by a second pattern, wherein the background portion and the latent image portion are almost equal in density.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Funada by the teaching of Heckman because: (a) it would have created an improved and more efficient system for electronically printing tamper-resistant plural color documents as taught by Heckman, column 1, lines 5-10; and (b) it would have eliminate the problem of requiring pre-printed "safety paper" as taught by Heckman, column 1, lines 5-20.

Note 1: column 14, lines 5-13, the print preventive pattern that is selected must be inconspicuous with human eyes, and whether an image is inconspicuous with human eyes inherently depends in resolution of the printer. Column 8, lines 50-63 teaches the

selected pattern is specially designed according to (corresponds to) the resolution of the printer (400dpi in this example).

Regarding claims 13, 14: Funada teaches the image forming characteristic of the image forming apparatus further corresponds to at least one of a tone property and a number of colors of the image forming apparatus.

Column 4, lines 20-30, Funada teaches the printer is printing with four colors, CMYK. Column 18, lines 1-5, teaches a particular pattern is not selected according to whether the printer is in a monochromatic copy mode or a two color copy mode. The monochromatic copy mode (printing with one color) or a two color copy mode (printing with 2 color) are image forming characteristic of the printer.

Furthermore column 8, lines 1-5 teaches the pattern is selected only when the printer is forming yellow images.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Funada et al (US 5,742,408) as applied to claim1 above, and further in view of Heckman et al (US 5,291,243).

Funada et al. teach wherein the piece of copy forgery preventing image data includes at least a first pattern (fig. 10).

Additionally, Funada et al. teach a selecting means that selects the piece of copy forgery preventing image data so that distinguished patterns can be formed (column

Art Unit: 2625

8:lines 46-48), and that the pattern is printed so that the document being printed can be legibly read (column 12, lines 14-22).

Funada et al. do not teach printing the piece of copy forgery preventing image data wherein the piece of copy forgery preventing image data includes at least a background portion constituted by a first pattern and a latent image portion constituted by a second pattern, wherein the background portion and the latent image portion are almost equal in density.

Heckman, in the same area of print image patterns onto print pages to avoid forgery, teaches printing the piece of copy forgery preventing image data wherein the piece of copy forgery preventing image data includes at least a background portion (column 8, lines 1-5, 110, fig. 11) constituted by a first pattern and a latent image portion (111, fig. 11, column 8, lines 15-25) constituted by a second pattern, wherein the background portion and the latent image portion are almost equal in density (column 8, lines 18-20, abstract).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Funada to include: printing the piece of copy forgery preventing image data wherein the piece of copy forgery preventing image data includes at least a background portion constituted by a first pattern and a latent image portion constituted by a second pattern, wherein the background portion and the latent image portion are almost equal in density.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Funada by the teaching of Heckman because:

Art Unit: 2625

(a) it would have created an improved and more efficient system for electronically printing tamper-resistant plural color documents as taught by Heckman, column 1, lines 5-10; and (b) it would have eliminate the problem of requiring pre-printed "safety paper" as taught by Heckman, column 1, lines 5-20.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Funada et al (US 5,742,408). as applied to claim 1 above, and further in view of Barry et al (US 5,859,711).

Regarding claim 15: Funada does not teach wherein each of the plurality of image forming apparatuses corresponds to a different model.

Barry, in the same area of printing from a host device (14, fig. 1, Barry, column 12, lines 50-57, Funada), teaches that a print job would contain multiple pages, and it is advantage to print the print job using different plurality of image forming apparatuses corresponds to a different model (column 14, lines 5-15, column 11, lines 40, Barry; also see column 8, lines 40-45).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Funada to include: using a plurality of image forming apparatuses for printing wherein each of the plurality of image forming apparatuses corresponds to a different model to speed up the printing process.

Response to Arguments

9. Applicant's arguments filed 4/18/2006 have been fully considered but they are not persuasive.

With respect to applicant's argument that Funada does not teach: wherein the image forming characteristic of the image forming apparatus corresponds to a resolution of the image forming apparatus; has been considered.

In reply: Funada et al. column 14, lines 5-13, teaches the print preventive pattern that is selected must be inconspicuous with human eyes, and whether an image is inconspicuous with human eyes inherently depends in resolution of the printer. Column 8, lines 50-63 teaches the selected pattern is specially designed according to (corresponds to) the resolution of the printer (400dpi in this example).

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is 571-272-7440. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 19, 2006


KING Y. POON
PRIMARY EXAMINER